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Geographical Exercises

FOR

INFANT SCHOOLS.

C. L. Andrews.

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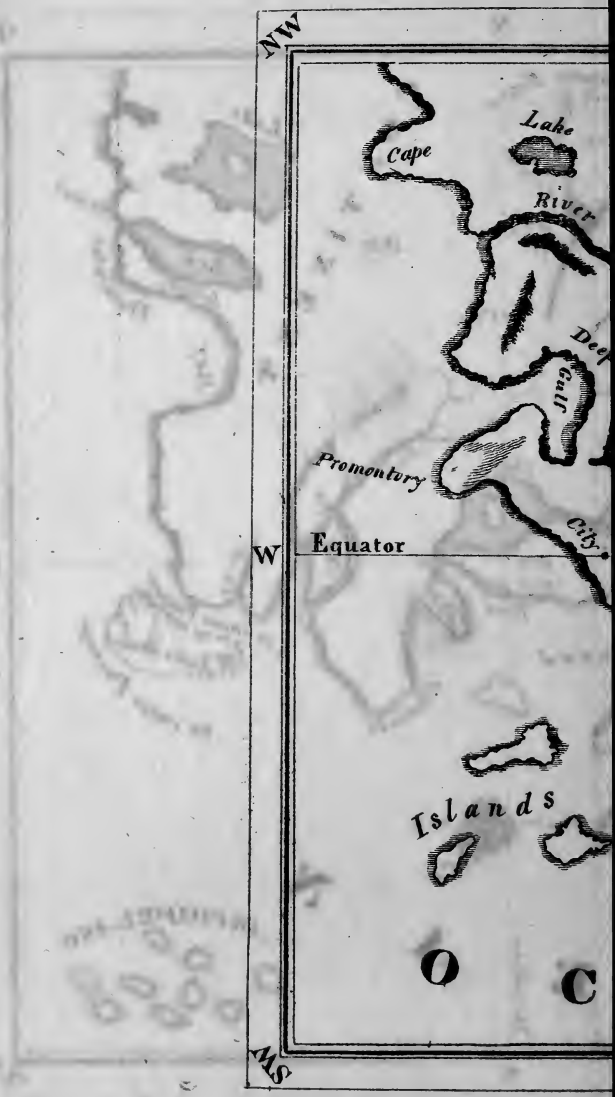
NW
Lake
Cape
River
Gulf
Promontory
City
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Equator
Islands
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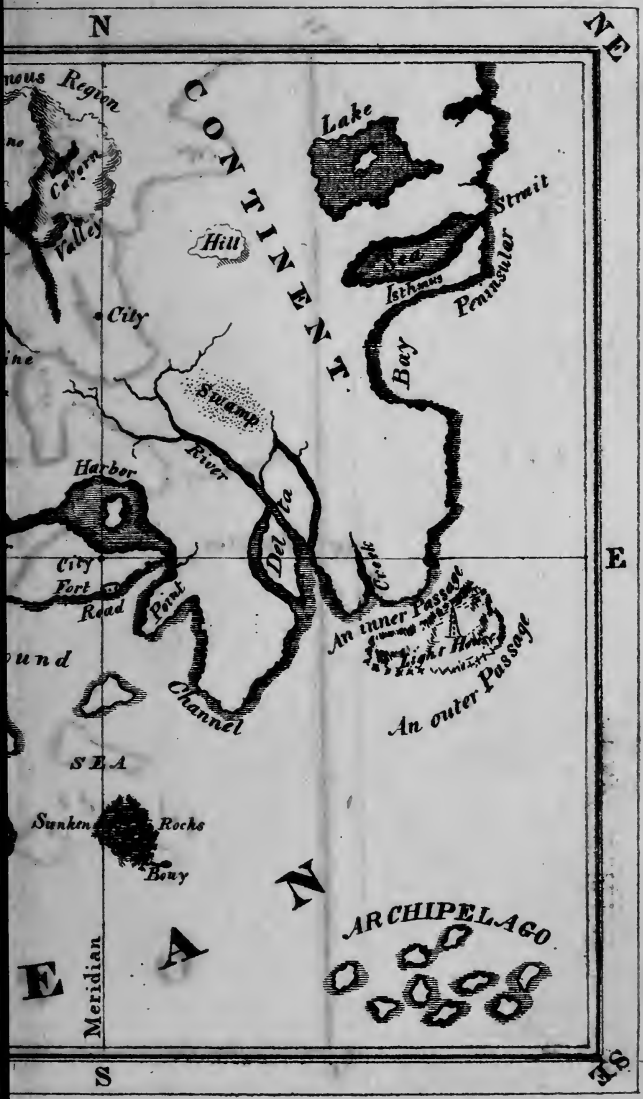
C
SW

A KEY
to
C. Andrews'
O-GEOGRAPHIC
MAP,
Infant Schools.



Deposited in the
Clerk's Office of the
Southern District
of New York Jan'y
3d. 1832.—

Geographical Exercises

FOR

INFANT SCHOOLS,

ACCOMPANIED BY A

HYDRO-GEOGRAPHIC MAP,

WHICH, AT ONE VIEW,

EXHIBITS THE SEVERAL DIVISIONS

OF

LAND AND WATER,

Required to be understood by the Terms used in Explaining the Natural Positions or Situations of Places.

By CHARLES C. ANDREWS, Teacher.

NEW-YORK:
Printed by B. G. Jansen, 189 1-2 Hudson-street.

1831.

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PREFACE.

THE writer, in presenting to the public this little work, in company with his Hydro-Geographic Map, has the pleasure of complying with the wishes of many experienced Teachers of Infant Schools, as well as with those of several distinguished persons who are Patrons of such institutions.

The Map has been introduced into a great many elementary, as well as infant schools (but is peculiarly adapted to the latter) throughout the Union, and the demand for them increasing, it was found necessary that a lesson like the one now offered should accompany it, embracing all the improvements recently made, for several of which the writer

is indebted to the suggestions of some of the most experienced teachers in this city.

The H. G. Map has been found very useful in families where there are children, not however to the exclusion of good engraved maps, but as a preparatory step to their use.

It is due to several literary and practical gentlemen, who have recommended and adopted this plan of communicating the knowledge of Elementary Geography, to tender to them and the public, for past encouragement, the grateful acknowldgements of

THE AUTHOR.

New-York, 1832.

EXERCISE

Accompanying C. C. Andrews' Hydro-Geographic Map for Infant Schools.

Teacher.—This map represents all the natural divisions of the earth.

What does this map represent?

T.—In the 1st chap. Genesis, 1st verse, we are told, that God created the heaven and the earth.

Who created the heaven and the earth, and where do we find the account of it?

T.—In the 1st chap. Genesis, 9th verse, we are informed, that God commanded that the waters be gathered together unto one place, and that the dry land appear.

Who commanded that the waters be gathered together, and that the dry land appear?

T. In the 1st chap. Genesis, 10th verse, we find, that God called the dry land earth, and the gathering together of the waters, he called seas.

What did God call the dry land?

What did he call the waters?

T.—This large tract of land represents a conti-

nent, comprehending several regions, or countries, without an entire separation of its parts by water.

What does this represent, and what is a continent?

[Here, and in explaining all other divisions of land and water, it is desirable that the Teacher point to the part which may be under consideration.]

T.—An Island is a smaller tract of land which is entirely surrounded by water. A large cluster of Islands is sometimes called an Archipelago.

What is an Island?

What is a large cluster of Islands sometimes called?

T.—A Peninsula is a portion of land encompassed by water, except at one narrow part, by which it is joined to the neighboring Continent.

What is a Peninsula?

T.—An Isthmus is a neck, or narrow part of land, which joins a peninsula to the continent.

What is an Isthmus?

T.—A Promontory is a high part of land which projects into the sea, and is commonly called a Cape, when it appears like a mountain; but, when its extremity has a little elevation, it is termed a Point.

What is a Cape or Promontory?

How do you distinguish a Cape from a Point?

T.—A Mountain is high land, elevated considerably above the adjacent country.

What is a Mountain?

T.—A Hill is high land, less elevated than a mountain.

What is a Hill?

T.—A Volcano is a mountain which emits fire, and is called a Burning Mountain.

What is a Volcano?

T. A Crater is the mouth of a volcano, through which the fire is thrown out.

What is a Crater?

T. A Delta is a tract of low land next to the sea, and lying between different entrances of some large river.

What is a Delta?

T.—A Plain is a large extent of level land unbroken by hills.

What is a Plain?

T.—The Sea or Ocean is a vast plain until it is raised into waves, or ruffled by the wind.

What is the sea? How is it raised into waves?

[Here the children can show the effects of wind upon the water by blowing on it with the mouth.]

T.—A Valley is low land between two mountains, or between two hills, &c.

What is a Valley?

T.—A Swamp is a bog or marshy place, generally near some lake, river, &c. in low ground.

What is a Swamp?

T.—A Mine is a hollow dug in the earth, where metals and minerals are found, such as Gold, Silver, Iron, Copper, Tin, Coal, Salt, &c.

What is a Mine? What are found in mines?

[The Teacher may explain, respecting mines, what vast labour is bestowed in procuring the various and necessary articles found under the surface of the earth, and the wisdom of Providence in depositing them in such situations that vegetation might not suffer by their being placed on the surface, &c.]

T.—This Promontory is situated north of this point, and this Bay is south of this Lake.

How is this Promontory situated from this point?

T.—This Island is west from the Lighthouse, (varying the descriptions according to the relative positions of places, and pointing them out during the explanation.) This Mountain lies north, and this Point lies south of the equator.

How does this Island lie from this Lighthouse?

This Mountain from this Point? &c.

T.—Water is divided into Oceans, Seas, Lakes, Gulfs, Bays, Sounds, Straits, Channels, Rivers, Roads, Creeks, Harbours, &c.

How is water divided?

T.—An Ocean is a large collection of water, without any separation of its parts by land.

What is an Ocean?

T.—A sea is a smaller collection of water than an ocean, communicates with it, and is confined by land.

What is a sea?

T.—A Lake is a large collection of water surrounded by land.

What is a Lake?

T.—A Gulf or Bay, is a part of the ocean running up into the land, and is surrounded by it, except at one part, where it communicates with the ocean.

What is a Gulf or Bay?

T.—A Strait is a narrow passage, between two shores, joining a gulf and sea to each other, or to the ocean.

What is a Strait?

T.—A Channel is a narrow sea, confined between an island and a continent, or between two islands.

What is a Channel?

T.—A Road is a place upon any coast, where there is good anchorage, and where vessels may be sheltered from boisterous gales.

What is a Road?

T.—A River is a considerable current of water, having its source in springs, &c. Some proceed from mountainous regions, and others, from low, swampy grounds.

What is a River?

From whence do rivers proceed?

T.—A Creek, is a small inlet, and is always less than a gulf or bay.

What is a Creek?

T.—A Harbour is a port, or station, where ships are sheltered from storms, and where they resort to for purposes of commerce.

What is a Harbour?

For what purposes do ships resort to harbours?

T.—A Canal is a hollow passage in the earth made by art, to receive the waters of the sea, lakes, rivers, &c. by which we can communicate with places at great distances from us.

What is a Canal?

What is its use?

T.—A Whirlpool* is a place in the water where it moves circularly, with great violence, and draws every thing that comes near it into its centre.

What is a Whirlpool?

* The northernmost Island in the Archipelago is made to take out, by which means a miniature whirlpool is produced, when the map is filled with water.

MISCELLANEOUS.

T.—Many of these divisions of land and water have some resemblance to each other; for a continent is similar, in extent, to an ocean; an island encompassed by water, resembles a lake encompassed by land; a peninsula of land is like a gulf or inland sea; an isthmus, by which two bodies of land are joined, resembles a strait, which unites two bodies of water; and a cape of land is like a bay, or creek of the sea.

In what respects do many of the divisions of land and water resemble each other?

T.—A Lighthouse is a high building, erected near some dangerous part of the coast, and is furnished with lights to guide ships coming from sea in the night.

What is a Lighthouse?

What is its use?

T.—A Buoy is used as a mark to pilots and mariners, to warn them of dangerous places in the sea, such as sunken rocks, shoals, &c.

What is the use of a Buoy?

T.—A Buoy is made fast by means of a cable and anchor.

How is a buoy made fast?

T.—A Fortification is a fort, castle, &c. built for the purpose of defending a place from the attacks of an enemy.

What is a Fortification?

What is its use?

HINTS TO TEACHERS.

It will be seen that the map is marked with the letters N. S. E. W., N.E., N.W., S.E. and S.W., indicating so many points of the compass, and are intended to show, that the wind blowing from any one of those quarters, would have an effect upon the course of a ship sailing in any direction upon the map: the ingenious teacher may make use of this circumstance to much advantage, by placing a small vessel (or even a chip) on the water, subject to any wind that may be blown from the mouth; if the vessel is to sail north, she can have a fair wind by blowing from the opposite point.

On the little vessel's entering a harbour, river, &c. her coming to anchor, may be shown by means of a thread and pin being let go from her bow.

A very pleasing experiment may be performed by putting a fine needle, as a bowsprit, into a small cork vessel, then, by applying a magnet near enough to attract the needle, the vessel might be led through nearly all the water parts of the map, and this, to the children, by an invisible agency.

This will likewise afford an opportunity to the teacher, to explain the various powers of attraction.

The Equator and Meridian are represented as the places where Latitude and Longitude begin. It may be explained to the pupils, that, when a vessel is on the meridian, she is said to have no longitude; but, if she sails to the right of it, she acquires eastern

longitude, and increases it as she sails in that direction. A similar effect is produced by her sailing from the meridian, on the left, but, in that case, her longitude will be west.

When a vessel is sailing on the right of, and towards the meridian, her eastern longitude is decreasing, so, when she is sailing from any part on the left of the meridian, and towards it, her western longitude is decreasing.

Again, when a vessel is on the equator, she is said to have no latitude; but, if she sails above (or north of) it, she will acquire north latitude, and will increase her northern latitude as she sails in that direction: if she sails below (or south of) the equator, she will, in that case, acquire south latitude, and will increase her southern latitude as she sails in that direction.

When a vessel is north of the equator, and is sailing towards it, she is decreasing her northern latitude, and when she is south of the equator, and sailing towards it, she is decreasing her southern latitude.

It will be seen, by inspecting the Key to the Map, that in the vicinity of the lighthouse, an Inner and an Outer passage are mentioned, which will afford the Teacher an opportunity to explain the difference between them, thus:—It would be dangerous for a vessel to sail through the inner passage, unless she be navigated by a person well acquainted with the difficulties of the channel; hence, Pilots are employed to conduct ships through such places; but,

as the outer passage affords more sea room, the danger of navigation there is less; although much time may be lost by adopting the latter course.

This interesting part of the subject might be familiarly illustrated, by referring to facts within the teacher's knowledge, such as the passage through Hurlgate, New-York, &c.

That part on the Map designated as a Volcano requires a remark. A Crater is left open in the mountain, which, to illustrate an eruption, can be filled at any time by a little tuft of silk or feathers, of suitable colors, to exhibit the appearance of fire. Here the teacher can very properly explain how we obtain sulphur, pumice-stone, &c.; and also give a little account of some of the most remarkable eruptions that have been noticed in history.

When a vessel sails round a Cape, she is said to "double the cape," in sea phrase, and she generally stretches out to sea a long distance, so as to give the cape a "good birth," which is another sea term, for the cape must be far enough off, in doubling it, for the ship to be clear of rocks and shoals that may be near it.

It may be very useful, when explaining what a Canal is, to show some of its advantages, besides those mentioned in the lesson, such as its enabling those sections of countries through which it passes, to carry on trade with distant parts, without exposure to the dangers of the sea; in case of foreign war, it affords a safe conveyance, without risk of attacks from the enemy's ships, &c.

The Boundary Lines, marked out on the continent, &c. are intended to show the civil or political divisions of countries.

LATITUDE AND LONGITUDE.

It is proper to observe to the pupils, that the terms, latitude and longitude are as applicable to places on land as on the water, and the little square blocks on the land, which represent cities and towns, have both latitude and longitude, as well as ships have at sea. One city on the map is placed directly under the meridian, and that is where longitude begins; one is placed under th e equator, and that is where latitude begins; and one is placed at the intersection of the meridian and the equator, and there, there is neither latitude nor longitude for that is where both begin.

Travellers therefore, on land, are as constantly changing their latitudes and longitudes, while travelling, as those are who are sailing on the water.

To the few hints already given, the writer trusts he shall be excused, for adding one more, viz.

When we are imparting instruction to very young children, we should try to render every word we speak as plain as possible, and, as some words in this little work may not be understood by many of the children for whose benefit it is intended, it may be well for the teacher to explain them as they are met with, in some such way as the following,

Represents, *shows.*
Comprehending, *containing.*
Extremity, *farthest point.*
Encompassed, *surrounded.*
Elevation, *height.*
Emit, *send forth.*
Adjacent, *that which is near.*

LINES

To be Sung by the Children at the Conclusion of the Exercise. *Tune, Bonnie Boat.*

LAND.

Large continents and islands too
Were form'd at God's command,
Peninsulas and isthmuses,
Capes, hills, and mountain land.

WATER.

Vast oceans, seas, and gulfs and bays,
With rivers large and wide,
Lakes, channels, straits, and other streams,
The flood and ebbing tide.

LIGHTHOUSE.

The mariner, when near the coast,
In gloomy storms at night,
Mid rocks and shoals, on a lee shore,
Is guided by this light.

BUOY.

Large rocks and sand-bars deep are hid
Beneath the swelling waves,
And buoys are plac'd to warn thereof,
Which many vessels saves.

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